

## ABSTRACT OF THE DISCLOSURE

A device (1) for measuring the relative orientation according to at least one degree of freedom for two objects, including a constraint generator (10) suitable for causing a goniometric sensor (40) to move in a plane, having the function of measuring the variation of relative orientation of the two objects in this plane. The goniometric sensor (40) is arranged in a housing (41) that crosses longitudinally the constraint generator (10), which has high flexional stiffness in a first longitudinal plane ( $\beta$ ) and a low flexional stiffness in a second longitudinal plane ( $\phi$ ) orthogonal to the first ( $\beta$ ). The sensor measures rotations in a plane and the constraint generator induces a rotation in that plane. With the device (1) a data suit (50) can be made for measuring the movement of limbs of an individual. For example, arranging three devices (10a, 10b, 10c) in series, but capable of measuring angles in orthogonal planes, the rotation can be measured of the arm (76) with respect to a shoulder (75) of an individual.